

Fill in the Blanks

Resultant Forces and Equilibrium

Force F_1	Force F_2	Force F_3	Resultant Force F	Equilibrium (Yes/No)	Magnitude of F	Angle F makes with $+x$ -axis
$4i + 2j$	$-2i + 3j$	$-5i - j$	$-3i + 4j$	No	5	126.9°
$-3i - 5j$	$2i - j$	$7i + 3j$				
$-i + 10j$	$4i - 5j$	$-3i - 5j$				
$\frac{3}{2}i - \frac{5}{2}j$	$4i + \frac{3}{4}j$	$-\frac{5}{4}i + \frac{1}{2}j$				
$-3j$	$3\sqrt{3}i + 6j$	$-5\sqrt{3}i - j$				
	$2i + 11j$	$i + 5j$	$5i + 12j$			
$-2i + j$	$-3i - 14j$		$8i - 8j$			
$\frac{6}{5}i - 3j$		$-\frac{3}{5}i + \frac{1}{2}j$		Yes		
$-4i + \square j$	$7i - 3j$	$\square i - 5j$		Yes		
$\square i - 2j$	$2i + \square j$	$3j$	$-4i + \square j$			135°
$-i + \sqrt{3}j$	$\square i - 7\sqrt{3}j$	$7i + 2\sqrt{3}j$				60°